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A NEW SPECIES OF SPHACELOMA ON POINSETTIA.

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A taxonomic study of the *Sphaceloma* recently discovered on Poinsettia in Florida¹ and Honolulu² has shown that this is apparently a distinct species. A technical description therefore is provided as follows:

***Sphaceloma poinsettiae*, n. sp.**

Spots on foliage often limited to nerves and leaf margins; on nerves raised, pale buff at the center surrounded by a purple, occasionally nearly black, margin, up to at least 4 x 2 mm., on leaves, circular, usually raised below and concave above, pale buff to "liver brown"³ reaching 3 mm. in diam., on leaf margins more or less hemispherical, causing an inrolling of the leaf; cankers on stems often numerous, circular to elliptical or elongate, raised, sometimes becoming depressed at the center, bright colored, often "pinkish buff,"³ the margin sometimes of a deeper hue, sometimes purple, area around the canker not discolored, or red or purple, 1 mm. to 1 cm. or more in length, by 1 mm. to at least 8 mm. wide, by confluence cankers occupying greater or less areas of the stem, this sometimes becoming swollen where encircling the stem, killing the part above. Conidial stage not noticeable on the spots or forming a more or less gray to "olive-brown"³ covering over them; hyphae hyaline to pale yellow, forming a more or less loose stroma, mingled with remnants of host tissue, conidiophores arising from the stroma, forming a more or less continuous compact layer, or small isolated groups, straight or bent, pointed at the apex, usually continuous or 1-septate, pale to brown, reaching 15-30 μ in length by 3-5 μ broad,

¹ Ruehle, G. D. Poinsettia scab caused by *Sphaceloma*. *Phytopathology* 31: 947-948. 1941.

² Jenkins, A. E. Poinsettia scab discovered in Honolulu. *Phytopathology* 32: 336-337. 1942.

³ Ridgway, R. Color standards and color nomenclature. 45 p., 42 pl. Washington, D. C. 1912.

conidia elliptical to oblong, occasionally cylindrical or spherical with 1-2, rarely 3 cells, often constricted at the septum, 7-20 μ long by 2.5-5.3 μ broad, pale or sometimes as dark as the conidiophores.

Maculae in foliis saepe ad nervos marginesve limitatae, in nervis elevatae, centro pallide luteae margine purpureo, interdum fere nigro cinctae, usque admodum 4 x 2 mm., in lamina circulares vulgo inferne elevatae et superne depressae, pallide luteae vel hepaticae, 3 mm. in diam., in margine subhemisphaericales, folium involventes; cancri in caulibus saepe numerosi, circulares, elliptici vel elongati, elevati, interdum centro depressi, laete colorati, margine interdum purpureo, area cancrum circumdantia non decolorata vel rubro vel purpurea, 1 mm.-1 cm. vel magis longae, 1 mm. usque admodum 8 mm. lati, quando confluentes partem majorem caulis occupantes, interdum caulem tumefacientes vel caulem cingentes et superne necantes. Status conidicus in maculis inconspicuus vel tectum plus minusve continuum griseum vel olivaceum formans; hyphae hyalinae vel pallide flavidulae, stroma laxum textura metricis intermixtum sub superficiem formantes; conidiophora stratum compactum plus minusve continuum formantia vel in caespitibus isolatis, recta curvatae, acuminata, continua vel septata, pallida vel brunnea, usque 15-30 μ longa, 3-5 μ lata; conidia elliptica vel oblonga, interdum cylindrica vel spherica, 1-2-(rare 3-) cellularia, ad septum saepe constricta, 7-20 μ longa, 2.5-5.3 μ lata, pallida vel brunnea ut in conidiophoris.

Distribution.—Producing the disease termed "poinsettia scab" on leaves and stems of *Euphorbia pulcherrima* Wild. var. *plenissima* Hort. in Florida and Hawaii. This horticultural variety was highly susceptible both in Florida and Honolulu, although in Florida a certain strain appeared to be resistant. In that State mild infection was observed in one instance on *E. poinsettia*, but none on the horticultural variety *albida*.⁴

Specimens examined:

Dade Co., Fla., Goulds, July, 1940, and December 9, 1941 (type), and Redlands, December 15, 1940, G. D. Ruehle.⁵

Honolulu, T. H. November, 1939, E. C. Zimmerman, comn. E. A. Bessey.

⁴ The history of the discovery and introduction of *Euphorbia pulcherrima* and the two varieties named is assembled in the following article: [P. A. Kolb] The poinsettia. Mo. Bot. Gard. Bull. 13: 143-148. 1925.

⁵ Poinsettia scab was troublesome in a nursery in Miami several years prior to the dates just given. This was learned by the junior author in a recent conversation with the nurseryman.